

Catalytic Condensation of Acetylene With Aromatic Amines. 79-11-44/56  
 XXX. Catalytic Synthesis of m-Nitro-, Amino- and Sulfamido-  
 Derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzo-  
 quinoline

$\beta$ -naphthylamine; from the aromatic aldehydes - m-nitro-  
 benzaldehyde. They synthesized a number of nitroderivatives  
 of 2-phenylquinoline and 2-phenyl-5,6-benzoquinoline (see  
 table 1). Thus the authors obtained a number of nitro-,  
 amino- and sulfamido-derivatives of 2-phenylquinoline and  
 2-phenyl-5,6-benzoquinoline, of which 26 were hitherto not  
 described in publications.  
 There are 2 tables, and 16 references, 9 of which are Slavic.

ASSOCIATION: Perm' State University (Permskiy gosudarstvennyy universitet).

SUBMITTED: September 4, 1956

AVAILABLE: Library of Congress

- Card 2/2
1. 2-Phenylquinoline - Derivatives - Synthesis
  2. 2-Phenyl-5,6-benzoquinoline - Derivatives - Synthesis
  3. Acetylenes - Catalytic condensation
  4. Amines - Catalytic condensation

AUTHORS: Kozlov, N. S., Koz'minykh, O. K. 20-114-4-29/63

TITLE: A Catalytic Synthesis of Para-, Nitro-, Amino-, and Sulphamido-derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzoquinoline (Kataliticheskiy sintez para-, nitro-, amino- i sul'famidoproizvodnykh 2-fenilkhinolina i 2-fenil-5,6-benzokhinolina)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 4, pp. 785-788 (USSR)

ABSTRACT: The nitro- and aminoderivatives of 2-phenylquinoline and 2-phenyl-5,6-benzoquinoline have been described in publications only as individual representatives. The sulphamidoderivatives of this series were not discussed at all. Nevertheless, the considerable anti-bacteriological effect of some amines and sulphamides of the quinoline series is well known. For the purpose of producing the nitroderivatives of the 2-phenylquinoline the authors employed the well-known method of the catalytic condensation of acetylene with aromatic amines and aromatic aldehydes. Thereby the substances with aromatic amines and aromatic aldehydes. Thereby the substances I - III (table 1) were synthesised /6-methoxy-2-(4<sup>1</sup>-nitrophenyl)-

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A Catalytic Synthesis of Para-, Nitro-, Amino-, and Sulphamido- derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzoquinoline 20-114-4-29/63

-quinoline- $C_{16}H_{12}O_3N_2$ ; 6-ethoxy-2-(4<sup>1</sup>-nitrophenyl)-quinoline  $C_{17}H_{14}O_3N_2$  and 2-(4<sup>1</sup>-nitrophenyl)-5,6-benzoquinoline  $C_{19}H_{12}O_2N_2$ /. Into the condensation reaction the authors introduced p-nitro-benzaldehyde and aromatic amines: p-anisidine, p-phenetidine and 2-naphthylamine. The nitro compounds obtained were then transformed into amines by the usual methods of reduction. Thereby the substances IV - VI (table 1) were isolated /6-methoxy-2-(4<sup>1</sup>-aminophenyl)-quinoline  $C_{16}H_{14}ON_2$ ; 6-ethoxy-2-(4<sup>1</sup>-aminophenyl)-quinoline  $C_{17}H_{16}ON_2$  and 2-(4<sup>1</sup>-aminophenyl)-5,6-benzoquinoline  $C_{19}H_{14}N_2$ /. From the amines thus produced a number of sulphamidoderivatives of 2-phenylquinoline and of 2-phenyl-5,6-benzoquinoline (compounds VII - XXX, table 2) was synthesized by condensation in the pyridine medium of the produced amines with chloroanhydrides of different sulfo acids: with benzenesulfochloride,  $\beta$ -pyridinesulfochloride, m- and p-nitrobenzenesulfochlorides. The compounds I - XXX have hitherto not been described in publications. This work was successful in completing the method of synthesis,

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derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzoquinoline

previously proposed by Kozlov, for the 2-phenyl derivatives of the quinoline, by starting with acetylene, aromatic amines and aldehydes. The principle of the method is based on the fact that a mixture of a primary aromatic amine and an aromatic aldehyde is saturated with acetylene in the presence of a catalyst. According to the authors' opinion of the reaction mechanism, the half amount of the aromatic amine forms a basis of interaction with the aromatic aldehyde; the other half of the same aromatic amine forms with acetylene the corresponding monoethylide basis. There then follows the interaction between thus obtained bases with one another, from which an intermediate product results which was insulated in one case and examined for its composition. The substance in which the intermediate product was formed is subsequently subjected to cyclisation by the thermal method and to heating with HCl of 10%. The intermediate product transforms into 2-phenyl derivatives of the quinoline series. It was aniline that reacted most actively with acetylene. This the authors exploited for working out a new technique: they added an equimolecular amount of aniline to the produced basis of

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A Catalytic Synthesis of Para-, Nitro-, Amino-, and Sulphamido- derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzoquinoline 20-114-4-29/63

any aromatic aldehyde and amine and then saturated the thus obtained reaction matter with aniline in the presence of a catalyst. This makes the synthesis of the phenylquinoline bases still more accessible, increases the yields, and confirms previous opinions of Kozlov regarding the mechanism of these syntheses which is referred to here. Finally the technique is described in details. There are 2 tables and 12 references, 12 of which are Soviet.

ASSOCIATION: Molotovskiy gosudarstvennyy universitet im. A. M. Gor'kogo  
(Molotov State University imeni A. M. Gor'kiy)

PRESENTED: March 1, 1957, by A. A. Balandin, Member, Academy of Sciences, USSR

SUBMITTED: February 26, 1957

Card 4/4

5.3900

68269

SOV/81-59-10-34896

Translation from: Referativnyi zhurnal. Khimiya, 1959, Nr 10, p 189 (USSR)

AUTHOR: Koz'minykh, O.K.

TITLE: The Catalytic Synthesis of Nitro-, Amino- and Sulfamido-Derivatives of 2-Phenylquinoline<sup>7</sup> and 2-Phenyl-5,6-Benzquinoline<sup>7</sup>

PERIODICAL: Uch. zap. Permsk. un-t, 1958, Vol 15, Nr 4, pp 111-127

ABSTRACT: The following substances were synthesized by the catalytic condensation of acetylene with aromatic amines and aldehydes: 6-R-2-(3'-nitrophenyl)-quinolines (Ia-d, here and further on a R = H, b R = CH<sub>3</sub>, c R = OC<sub>2</sub>H<sub>5</sub>) 6-R-2-(4'-nitrophenyl)-quinolines (IIc, d), 7-R-2-(3'-nitrophenyl)-quinoline (IIIb), and 2-(3'-nitrophenyl)- and 2-(4'-nitrophenyl)-5,6-benzoquinolines (IV and V) were also obtained. The substances Ic, d were reduced by Sn and HCl to the corresponding 6-R-2-(3'-aminophenyl)-quinolines (VIc, d); in an analogous way IIc, d were reduced to 6-R-2-(4'-aminophenyl)-quinolines (VIIc, d); the substances IV and V were also reduced to the corresponding amino-derivatives (VIII and IX). Several sulfamido-derivatives which are of biological interest have been synthesized by the condensation of amino-derivatives with the corresponding sulfochlorides: 6-R-2-(3'-R'-benzenesulfamidophenyl)-quinolines (Xc, d; here and later on R' = H, n-OCH<sub>3</sub>,  $\mu$ -NHCOCH<sub>3</sub>, n-NHCOCH<sub>3</sub>,  $\mu$ -NH<sub>2</sub> and n-NH<sub>2</sub>), 6-R-2-(4'-R'-benzenesulfamido-

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The Catalytic Synthesis of Nitro-, Amino- and Sulfamido-Derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzoquinoline

phenyl)-quinolines (XIc, d), 2-(3'-R'-benzenesulfamidophenyl)- and 2-(4'-R'-benzenesulfamidophenyl)-5,6-benzoquinoline (XII and XIII), 2-(3'- $\beta$ -pyridylsulfamidophenyl)- and 2-(4'- $\beta$ -pyridylsulfamidophenyl)-5,6-benzoquinolines (XIV and XV), 6-R-2-(3'- $\beta$ -pyridylsulfamidophenyl)-quinolines (XVIc, d) and 6-R-2-(4'- $\beta$ -pyridylsulfamidophenyl)-quinolines (XVIIc, d). A solution of 84 mmoles of  $\mu$ -nitrobenzaldehyde in 80 ml alcohol containing 88 mmoles of aniline and 5 g  $\text{HgCl}_2$ , is saturated with acetylene (20 hours, 70 - 80°C), it is alkalinized by 20% NaOH, the volatile substances are distilled off with water steam, the residue is poured into cold water, the product is dissolved in ether, the solvent is distilled off, the residue is dissolved in a mixture of alcohol with concentrated HCl (2 : 1), the product is precipitated with picric acid and Ia is separated, yield 27%, m.p. 122 - 123 (from alcohol); picrate, m.p. 179 - 180. In an analogous way were obtained (here and later on the substance, the yield in %, m.p. in °C and m.p. in °C of its picrate are indicated): Ib, 30, 142 - 142.5, 190 - 190.5; Ic, 46.7, 135.5 - 136 (from acetone), 196 - 197; Id, 50, 142.5 - 143 (from acetone), 235 - 236; IIc, 40.5, 156 - 157 (from acetone), 222 - 224 (decomp.); IIc, 45.6, 140 - 141 (from acetone), 187 - 188; IIb, 47.6, 158, 185 - 186; IV, 55.5, 182 - 183 (from  $\text{C}_5\text{H}_5\text{N}$ ), 240 (decomp.); V, 50, 196.5 - 197 (from  $\text{C}_5\text{H}_5\text{N}$ ), 142 - 143. 9.5 g Ic, 60 ml of concentrated HCl and 20 g

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The Catalytic Synthesis of Nitro-, Amino- and Sulfamido-Derivatives of 2-Phenylquinoline and 2-Phenyl-5,6-Benzoquinoline

Sn are heated for 8 hours at 80 - 90°C, gradually adding 20 - 30 ml of alcohol, it is alkylized by NaOH and VIc is extracted with acetone, 61.2, 127-128 (from acetone), 133 - 235 (decomp.). In the same way are obtained VIc, 80.3, 159.5 - 160 (from C<sub>5</sub>H<sub>5</sub>N), 202 (decomp.); VIIc, 51.1, 220 - 221 (from C<sub>5</sub>H<sub>5</sub>N), 189 - 190 (decomp.); VIId, 70.4, 188 - 189 (from C<sub>5</sub>H<sub>5</sub>N), 203 - 205 (decomp.); VIII, 65, 218 - 219 (from aqueous C<sub>5</sub>H<sub>5</sub>N), 245 - 246 (decomp.); IX, 81.9, 218 - 219 (from C<sub>5</sub>H<sub>5</sub>N), 181 - 182. To a suspension of VIc in C<sub>5</sub>H<sub>5</sub>N a small excess of C<sub>6</sub>H<sub>5</sub>SO<sub>2</sub>Cl in C<sub>5</sub>H<sub>5</sub>N is added, the whole is heated for 2 hours and Xd (R = H), yield 78.3% is separated, m.p. 208 - 209°C (from acetone). In a similar way are obtained (here and later on the substance, R' and m.p. in °C are indicated): Xc, H, 191 - 192; n-OCH<sub>3</sub>, 137 - 138; μ-NHCOCH<sub>3</sub>, 214 - 215; n-NHCOCH<sub>3</sub>, 217 - 218; Xd, n-OCH<sub>3</sub>, 183 - 184, μ-NHCOCH<sub>3</sub>, 199 - 200.5; n-NHCOCH<sub>3</sub>, 219; XIc, n-OCH<sub>3</sub>, 182 - 183; μ-NHCOCH<sub>3</sub>, 213 - 214; XIId, n-OCH<sub>3</sub>, 232 - 233; μ-NHCOCH<sub>3</sub>, 209 - 211; XII, H, 201 - 202; n-OCH<sub>3</sub>, 170 - 171, μ-NHCOCH<sub>3</sub>, 237 - 238, n-NHCOCH<sub>3</sub>, 233 - 234 (decomp.); XIII, H, 229 - 230, n-OCH<sub>3</sub>, 229 - 230, μ-NHCOCH<sub>3</sub>, 250 (decomp.), n-NHCOCH<sub>3</sub>, 215 - 216; XIV, -, 164 - 175; XV, -, 241 (decomp.); XVIc, -, 190, XVIIId, -, 209 - 210; XVIIc, -, 224 - 225; XVIIId, -, 215 - 215.5. Xc (R' = μ-NHCOCH<sub>3</sub>) is hydrolyzed with hot H<sub>2</sub>SO<sub>4</sub> and Xc is separated (R' = μ-NH<sub>2</sub>), 227 - 228 (decomp.). In a similar way are obtained Xc, n-NH<sub>2</sub>, 195 - 197; Xd, μ-NH<sub>2</sub>, 203 - 204; n-NH<sub>2</sub>, 213 - 214; XIc, μ-NH<sub>2</sub>, 225 - 226, XIId, μ-NH<sub>2</sub>, 211 - 212; XII, μ-NH<sub>2</sub>, 199 - 200, n-NH<sub>2</sub>, 224 (decomp.); XIII, μ-NH<sub>2</sub>, 254 - 255; n-NH<sub>2</sub>, 225 - 227.

L. Shchukina

PHASE I BOOK EXPLOITATION SOV/A350  
Soveshchaniye po khimii, tekhnologii i primeneniyu proizvozhnykh  
pyridina i khinolina. Riga, 1957

Emniye, tekhnologiya i primeneniye proizvozhnykh pyridina i  
khinolina; materialy soveshchaniya (Chemistry, Technology  
and Utilization of Pyridine and Quinoline Derivatives;  
Materials of a Conference) Riga, Izd-vo AN Latvyskoy  
SSR, 1960. 299 p. Errata slip inserted. 1,000 copies  
printed.

Sponsoring Agencies: Akademiya nauk Latvyskoy SSR. Institut  
khimii; Vsesoyuznoye khimicheskoye obshchestvo.

Ed.: S. Baranova; Tech. Ed.: A. Kiyavina; Editorial  
Board: Yu. A. Bankovskiy, Candidate of Chemistry, Z. V.  
Vasilev, Candidate of Chemistry (Resp. Ed.), L. P. Zilukayev,  
Doctor of Chemistry, and M. N. Kalynin.

PURPOSE: This book is intended for organic chemists and  
chemical engineers.

COVERAGE: The collection contains 33 articles on methods  
of synthesizing or producing pyridine, quinoline, and  
their derivatives from natural sources. No personalities  
are mentioned. Figures, tables, and references accompany  
the articles.

## II. SYNTHETIC MEANS OF PREPARING PYRIDINES AND QUINOLINES

Sadykov, A. S., and O. S. Orzhabskaya. [Sindetsialno  
znanstvenyy universitet Leningradskaya Universiteta (Central  
Asia State University Imani V. I. Lenin)]. Synthetic Studies  
Card 4/10

Parfomov, M. I., P. P. Utavashnikov, A. M. Kutin,  
P. V. Voznyak, G. A. Zakharenko, and V. A. Zakharenko. [Vsesoyuznyy tekhnicheskii  
institut khimicheskoy tekhnologii i tekhnicheskoy  
eksperimentatsii (Vsesoyuznyy tekhnicheskii institut  
eksperimentatsii)] Technical Syntheses of 2-Methyl-5-vinylpyridine  
and 2-Methyl-5-vinylpyridine and Their Polymers of Application 97

Yakov, G. Ya. [Institut organicheskogo sinteza Akademii nauk  
Latvyskoy SSR (Institute for Organic Synthesis of the  
Academy of Sciences Latvyskaya SSR)]. The Transition  
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Akademii nauk SSR (Institute for High Molecular Compounds  
of the Academy of Sciences USSR)]. Synthesis and Polymeri-  
zation of Unsaturated Compounds of the Pyridine and Quino-  
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Baza] Preliminary Synthesis of Lepidine 127

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Mikulin, V. I. [Moskovskiy gosudarstvennyy universitet  
Baza] Preparation of  
Quinoline Bases from Aromatic Amines and Acetylene 139

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institut khimicheskikh reaktivov (All-Union Scientific  
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Baza] Synthesis of  
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institut khimicheskikh reaktivov)] Catalytic Synthesis of 2-Phenyl-  
5,6-benzquinoline Derivatives 159

Ardashov, B. I. [Moskovskiy gosudarstvennyy universitet  
Baza] Catalytic Con-  
version of Acetylene and Aromatic Amines to Quinoline 171

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Medium 175

[illegible]

145	Mal'tsev, M.Y., Candidate of Technical Sciences. Dissolved Properties of Control Systems for D-C Drives With Negative Amplifiers
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152	Travnikov, Ye.P., Doctor, Candidate of Technical Sciences, and I.V. Lyufin and V.G. Suprunovskiy, Engineers. Control of D-C Converters Operating Under Variable Asymmetrical Polarity Conditions
153	Pavlov, D.S., Candidate of Technical Sciences. Automatic Optimization Regulation of Synchronous Motors Operating Under Variable Load Conditions
155	Vorobey, A.M., Engineer. Control of an Automatic Converter-Start Motor With the Use of a Differential Electromagnetic A-C Relay
158	Korovin, A.M., Engineer. Function Converter in Electric Drive Circuits
159	Gale, J.A., Engineer. Investigation of Electric Drive Systems With Continuous Positive Voltage Feedback
162	Mal'tsev, O.G., Engineer. Improving the Load Factor of a Rotating Amplifier at Low Signals by Means of the Method of A-C Superposition
163	Dobrynskiy, V.M., Candidate of Technical Sciences. Electromechanical Transmission of Frequency Regulation
165	Sergiy, P.A., Engineer. Selection of Structural-Case Induction Motors for Cyclic Operating Conditions
167	Shashkovskiy, N.E., Candidate of Technical Sciences. Method of Thermal Parameters Applied to the Heating of Ventilated Structural-Case Induction Machines
174	Kondratyuk, E.D., Doctor, Candidate of Technical Sciences. Thermal Processes in Electric Motors

Koz'minykh, Yu. K.

AID P - 5144

Subject : USSR/Engineering

Card 1/1 Pub. 103 - 3/18

Authors : Koz'minykh, Yu. K. and S. T. Shevakhin

Title : Heat-treatment section of the bearing automatic shop

Periodical : Stan. 1 instr., 5, 10-14, My 1956

Abstract : The authors describe the automatic processing of inner and outer ball and roller bearing rings. The heat and cold treatment, sorting, washing, drying, tempering, and finishing of the rings as practiced at the First State Bearing Plant - 1GPZ (Moscow) are discussed. Two tables, 3 graphs and 6 drawings:

Institution : Experimental Scientific Research Institute of the Bearing Industry (ENIIPP).

Submitted : No date

*Koz'minykh, Yu. K.*

Subject : USSR/Engineering

AID P - 4201

Card 1/1 Pub. 103 - 2/20

Author : Koz'minykh, Yu. K.

Title : Conveying Facilities in the Turning Section of Automatic Line for Manufacturing of Bearings.

Periodical : Stan. 1 instr., 1, 7-13, Ja 1956

Abstract : The author presents the design and operation of typical conveying facilities in the turning section of automatic lines for production of the 781-5K1-type bearings. The movement of blanks for inner and outer rings of these bearings forged from the ShKh15-type of steel, the automatic bunkers, lifters and conveyers, feeders, shutes, retarders, worm-conveyers for shavings, and the system for blocking and feeding parts are described and illustrated. Nine drawings.

Institution : None

Submitted : No date

*KOZ'MINYKH, Yu.*

VLASOV, S., inzhener; KOZ'MINYKH, Yu., inzhener.

Visiting a bearing manufacturing plant. IUn.tekh. no.1:60-64  
Ja '57. (MLRA 10:3)

1. Glavnyy konstruktor proyekta avtomaticheskikh linii podshipaikov  
(for Vlasov). 2. Veduyushchiy konstruktor avtomaticheskikh linii  
podshipaikov (for Koz'minykh).  
(Bearing industry)

КОЗ'МИНЬКА, Ю. К.

VLASOV, S.N., inzhener; KOZ'MINYKH, Yu.K., inzhener.

Centralized system for feeding cooling liquid in grinding machines.  
Vest. mash. 37 no.7:59-62 J1 '57. (MLRA 10:8)  
(Metalworking lubricants) (Grinding machines)

*102 MINYKH, Y. K.*  
VLASOV, S.N.; KOZ'MINYKH, Y. K.

Automatic equipment used for demagnetization of bearing rings and  
assembled bearings. Stan. 1 instr. 29 no.2:26-28 P '58. (MIRA 11:3)  
(Bearings (Machinery)--Magnetic properties)

VLASOV, S.N.; KOZ'MINYKH, Yu.K.

Feeding and discharging equipment for machine tools used in  
automatic bearing-production lines. Stan.i instr. 29 no.5:15-19  
My '58. (MIRA 11:7)  
(Machine tools--Attachments) (Bearing industry)

BOBROV, V.P., kand. tekhn. nauk; KOZ'MINYKH, Yu.K., inzh.,  
retsenzent; MALOV, A.N., prof., red.

[Design of feeding and conveying devices for machine  
tools and automatic lines] Proektirovanie zagruzochno-  
transportnykh ustroystv k stankam i avtomaticheskim  
liniham. Moskva, Mashinostroenie, 1964. 260 p.  
(MIRA 18:1)

1 15064-55 PAK(S)-2/PAK(A)/DT(S) 11

ACCESSION NR: APS015171

UR/0016/64/000/009/0148/0149

AUTHOR: KOMAROV, YU. V.

TITLE: Clinical-epidemiological characteristics of transmission of the poxus type of swamp fever

SOURCE: zhurnal mikrobiologii, epidemiologii i immunitologii, no. 9, 1964, 148-149

TOPIC TAGS: animal disease, epidemiology, human ailment

Abstract: The article contains a clinical and epidemiological report on a small outbreak of swamp fever (poxus) in the Udmurt ASSR. All the patients in the epidemic were children who had swum in the same creek at a place where cattle were watered. The disease was detected in the cattle.

ASSOCIATION: Respublikanskaya sanitarno-epidemiologicheskaya stantsiya Udmurtskoy ASSR (Republican Sanitary-Epidemiological Station of the Udmurt ASSR)

SUBMITTED: 25Nov65

ENCL: 00

SUB CODE: 14

NO REF SOV: 000

OTHER: 000

JPRS

Card 1/1 7/7

BROSS, Wiktor; KOZMISKI, Stefan

Arterioplasty in arteriosclerotic ischemia of the lower  
extremities. Pol. przegl. chir. 35 no.12:1343-1351 D'63

1. Z II Kliniki Chirurgicznej AM we Wroclawiu; kierownik:  
prof.dr. W.Bross.

\*

KOZMODEM'YANSKIY, V.V.

Geology and oil potential of the Uzen'-Zhetybay tectonic bench  
based on exploratory drilling data. Geol. nefti i gaza 6 no.11:  
9-11. N '62. (MIRA 15:12)

1. Trest Mangyshlakneftegazrazvedka.

KOZMODEM'YANSKIY, V.V.; NURMANOV, A.M.

Preparing regions for prospecting drilling in southern  
Mangyshlak Peninsula. Neftgaz. geol. i geofiz. no.4:  
14-17 '64. (MIRA 17:6)

1. Trast "Mangyshlakneftgazrazvedka."

VYALOVA, R.I.; D'YAKOV, B.F.; IMASHEV, N.U.; KOZ'MODEM'YANSKIY, V.V.;  
KRAYEV, P.I.; KRUCHININ, K.V.; TOKAREV, V.P.; TRIFONOV, N.K.;  
CHEREpanov, N.N.

Southern-Mangyshlak oil- and gas-bearing region. Trudy VNIGRI  
no.218:7-50 '63. (MIRA 17:3)

VOKLOV, A.; KOZ'MODEM'YANOV, Ye. A.

SKG-3 combine on fields of the Far East. Tekh. v sel'khoz. 20  
no.6:57-58 Je '60. (MIRA 13:11)

1. Blagoveshchenskiy sel'skokhozyaystvennyy institut.  
(Soviet Far East--Combines (Agricultural machinery))

ZAYTSEV, I.M., inzh.; VOLKOV, A.T., inzh.; KOZMODEM'YANOV, Ye.A., kand.tkehn.  
nauk

Machinery for growing soybeans. Mekh. i elek. sots. sel'khoz. 19  
no.2:8-9 '61. (MIRA 14:3)

1. Amurskiy oblispolkom (for Zaytsev). 2. Blagoveshchenskiy  
sel'skokhozyaystvennyy institut (for Volkov and Kozmodem'yanov).  
(Soybean) (Agricultural machinery)

D'YAKOV, B.F.; IMASHEV, N.U.; KRUCHININ, K.V.; KOGAN, A.B.:  
~~KOZMODEM'YANSKIY, V.V.~~; TOKAREV, V.P.; TRIFONOV, N.K.  
CHEREpanov, V.N.; VYALOVA, R.I.

Southern Mangyshlak is a large new oil-bearing region. Geol.  
nefti i gaza 5 no.12:4-11 D '61. (MIRA 14:11)

1. Vsesoyuznyy nefteyanoy nauchno-issledovatel'skiy  
geologorazvedocheskoye upravleniye i trest Mangyshlakneftegazrazvedka.  
(Mangyshlak Peninsula—Oil fields)

KOZMOV, K. inzh.

Ten years of interdepartmental Machinery Industry Organization  
"Mashproekt." Mashinostroene 10 no.11:1-2 '61.

1. Kirektor na "Mashproekt."

KOZMUTZA, P.

KOZMUTZA, P. Economic production and its indexes. p. 352.

No. 9, Sept. 1955.

MAGYAR TEXTILTECHNIKA.

TECHNOLOGY

Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

KOZMUTZA, P.

Encouraging economizing of secondary materials. P. 107  
MAGYAR TEXTILECHNIKA Budapest No. 3, Mar. 1956

SOURCE: East European Accessions List (EEAL) Library of Congress  
Vol. 5, no. 8, August 1956

KOZMUTZA, P.

Evaluation of innovations and their relationship to decreasing prime cost.  
p. 69. TOBETINIKLES. Budapest. Vol. 9, No. 8/9, Aug./Sept. 1956

SOURCE: East European Accesssions List (EEAL) Library of Congress  
Vol. 5, No. 6, June 1956

K. M. V. A., P.

K. M. V. A., P. The relationship between the producer's price and profitability;  
reference about János Pásztor's article "The Producer's Prices and the Profit-  
ability of Industrial Enterprises." p. 32.

Vol. 10, no. 7, July 1956

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Budapest, Hungary

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p. 457.

MAGYAR TEXTILTECHNIKA. (Textilipari Muszaki es Tudomanyos Egyesulet)  
Budapest, Hungary, Vol. 10, no. 11/12, Dec. 1958.

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Uncla.

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KOZMUTZA, Pal, dr.

Organizational method for forming a socialist brigade, workshop and enterprise. Munka szemle 6 no.9:21-23 S '62.

KOZMUTZA, Pal, dr.

On the level of technology; a polemic article. Magy textil 14  
no.8:377-379 Ag '62.

1. Magyar Gyapjufono es Szovogyar.

KOZMUTZ, Pal, dr.

Complex mechanization and automation of carded yarn spinning  
mills. Magy textil 15 no.11:518-522 '63.

KOZMUTZA, Pal, dr.

Organizational activity after the establishment of the Organizational Institute of the Light Industry. Magy textil 16  
no.1839-40 Ja'64

KOZMUTZA, Pal, dr.

Exploitation of labor productivity reserves within the framework  
of the Council for Mutual Economic Assistance. Munka szemle 8  
no. 3:7-10 Mr '64.

KOZMUTZA, Pal, dr.

Is plant comparison a method for analysis or organization? Munka  
szemle 5 no.10:19-21 0 '61.

KOZMUTSA, Pal, dr.

Industrial reorganization and manpower reserves. Munka  
szemle 8 no.5:12-15 My'64.

KOZMUTZA, Pal, dr.

World level and product development. Magyar Textil 16 no. 6:  
253 Je '64.

1. Light Industry Organization Institute, Budapest.

KOZMUTTA, Pal, dr.

... aspects of the profit-sharing system. Munka szerle 9 no.2:  
58-60 F '65.

KOZMUTZA, Pal, dr.

Technical organizational tasks of fixed assets economy. Magy  
textil 17 no.3:140-142 Mr '65.

1. Light Industry Organization Institute, Budapest.

KOZIMYAN, E.I.

Interaction of antagonistic muscles in yielding work. Zhur. vys.  
nerv. deiat. 15 no.1:61-69 Jan-F '66.

(MIRA 18:5)

1. Institut vysshey nervnoy deyatelnosti i neyrofiziologii AN SSSR.

KOZNAECKA, Alicja; RADWANSKA, Urszula

Intrauterine fetal hemorrhage into the maternal circulation as a cause of neonatal anemia. *Pediat. pol.* 37 no.12:1335-1338 D '62.

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(INFANT NEWBORN DISEASE) (ANEMIA)  
(FETAL DISEASES) (HEMORRHAGE)

KOZNIEWSKA, Halina; WRONSKI, Jerzy; ZDERKIEWICZ, Edward

Procedures and results of the treatment of closed injuries  
of the skull and brain. Pol. tyg. lek. 19 no.28:1097-1099  
13 - 20 J1'64

1. Z Oddziału Neurochirurgii przy Klinice Neurologicznej Aka-  
demii Medycznej w Lublinie (kierownik kliniki: prof. dr.  
W. Stein; kierownik Oddziału: doc. dr. H. Kozniewska.

KOZNAROVA, H.

News for women, p. 318

ZELEZNICAR. (Ministerstvo dopravy) Praha, Czechoslovakia  
Vol. 2, no. 6, 1959.

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Feb. 1960.

Uncl.

KOZNAROVA, M.

A trial in the city of ballistic missiles.

P. 30 (Ceskoslovensky Vojak) Vol. 6, No. 19, Sept. 1957, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, NO. 1, JAN. 1958

1. T. M. KOZNEKO
2. USSR (600)
4. Cattle Breeding
7. Work practice of an artificial insemination station for cattle. Sots. zhiv. 15 no. 2. 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.



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GAFTEK, Ya.; KOZNEVSKAYA, G.; SILETSKIY, B.; SERPINSKIY, S.; STAMPEN', L.;  
TOCHEK, S.

Investigations on the pathophysiological mechanisms of speech disorders in focal affections of the dominant hemisphere of the brain. Zhur. nevr. i psikh. 55 no. 12:922-927 '55. (MLRA 9:2)

1. Otdel neyrokhirurgii Gosudarstvennogo psikhonevrologicheskogo instituta (dir.-prof. Z. Kuligovskiy) Varshava.

(SPEECH, DISORDERS, etiology and pathogenesis,  
brain lesions of dominant hemisphere)

(BRAIN, diseases,  
lesions of dominant hemisphere causing speech disord)

KRASZEWSKA, Z.; KOZNIIEWSKA, H.; CICHECKA, I.

Rupture of the interventricular septum diagnosed during life  
and 3 1/2 year follow-up. Kardiologia Polska. 8 no.1:75-77 '65

1. Z II Kliniki Chorob Wewnętrznych (Kierownik: prof. dr.  
E. Gorzkowski) i z III Kliniki Chorob Wewnętrznych Pomorskiej  
Akademii Medycznej w Szczecinie (Kierownik: doc. dr. M. Eisner).

KOZNIEWSKA, H.<sup>chirurg</sup>; WISLAWSKI, J; SLOWIK, T.

Epidermoid cyst of the spinal cord. Neur. &c polska 10 no.2:213-217  
Mr-Ap '60.

1. Z Kliniki Neurochirurgii A.M. w Warszawie Kierownik: prof. dr med.  
J.Chorobski.  
(SPINAL CORD neopl)

GORZKOWSKI, Edward; KOZNIEWSKA, H<sup>a</sup>lena

On clinical value of venous pressure in chronic circulatory  
insufficiency. Polski tygod.lek. 15 no.43/44:1662-1668 24 0'60.

1. Z II Kliniki Chorob Wewnętrznych P.A.M. w Szczecinie; kierownik:  
prof.dr med. Edward Gorzkowski.

(HEART FAILURE CONGESTIVE diag)

(BLOOD PRESSURE)

KOZNIEWSKA, Halina

Analysis of speech disorders in focal lesions of the temporal lobe of the dominant hemisphere. Rozpr.wydz.nauk med. 6 no.2:33-54 '61.

1. Z Zakladu Neurochirurgii Polskiej Akademii Nauk Kierownik: prof. dr med. Lucjan Stepień i z Panstwowego Instytutu Psychoneurologicznego w Pruszkowie Dyrektor: prof. dr med. Zygmunt Kuligowski.

(TEMPORAL LOBE dis) (SPEECH DISORDERS etiol)

HERMAN, E.; DOWZENKO, A.; ~~KOZMIEWSKI, H.~~; MICHALSKI, T.; WENDER, M.; WARECKA, K.;  
HAUSMANOWA-PETRUSEWICZ, I.; CENDROWSKI, W.; JUS, K.

The 7th International Congress of Neurology in Rome; collective  
report. Neurol neurochir psych 12 no.3:455-468 My-Je '62.

1. Członek Korespondent Komisji Biometrii i Genetyki przy Światowej  
Federacji Neurologów (for Cendrowski).

POLAND

KICZAK, Janina, KOZNIEMSKA, Helena, and NENYCH-GRASCOMA, Zofia; Second Clinic of Internal Diseases (II Klinika Chorob Wewnętrznych), PAM [Pomorska Akademia Medyczna, Pomeranian Medical Academy] in Szczecin (Director: Prof. Dr. med. E. GORZKOWSKI)

"Pernicious Anemia Following Partial Gastric Resection. Report of Three Cases."

Warsaw-Krakow, Przegląd Lekarski, Vol 19, Ser II, No 7, 31 Jul 63, pp 316-318

Abstract: [Authors' English summary modified] - Authors describe three cases of pernicious anaemia, 11, 15, and 16 years following partial gastric resection, with typical clinical and hematological symptoms of pernicious anaemia, in the first two cases without, and in the third case with symptoms of myelosis funicularis, later confirmed by examination of the marrow. Treatment with vitamin B<sub>12</sub> brought total remission of symptoms, normal red blood count, and - in the third case - regression of degeneration of funiculi. Authors discuss the characteristics, pathogenesis, and rarity of "gastric" pernicious anaemia. 24 refs: 1 Sov. 4 Polish.  
1/1

KICZAK, Janina; KOZNIEWSKA, Helena; NENYCZ-GRABCOWA, Zofia

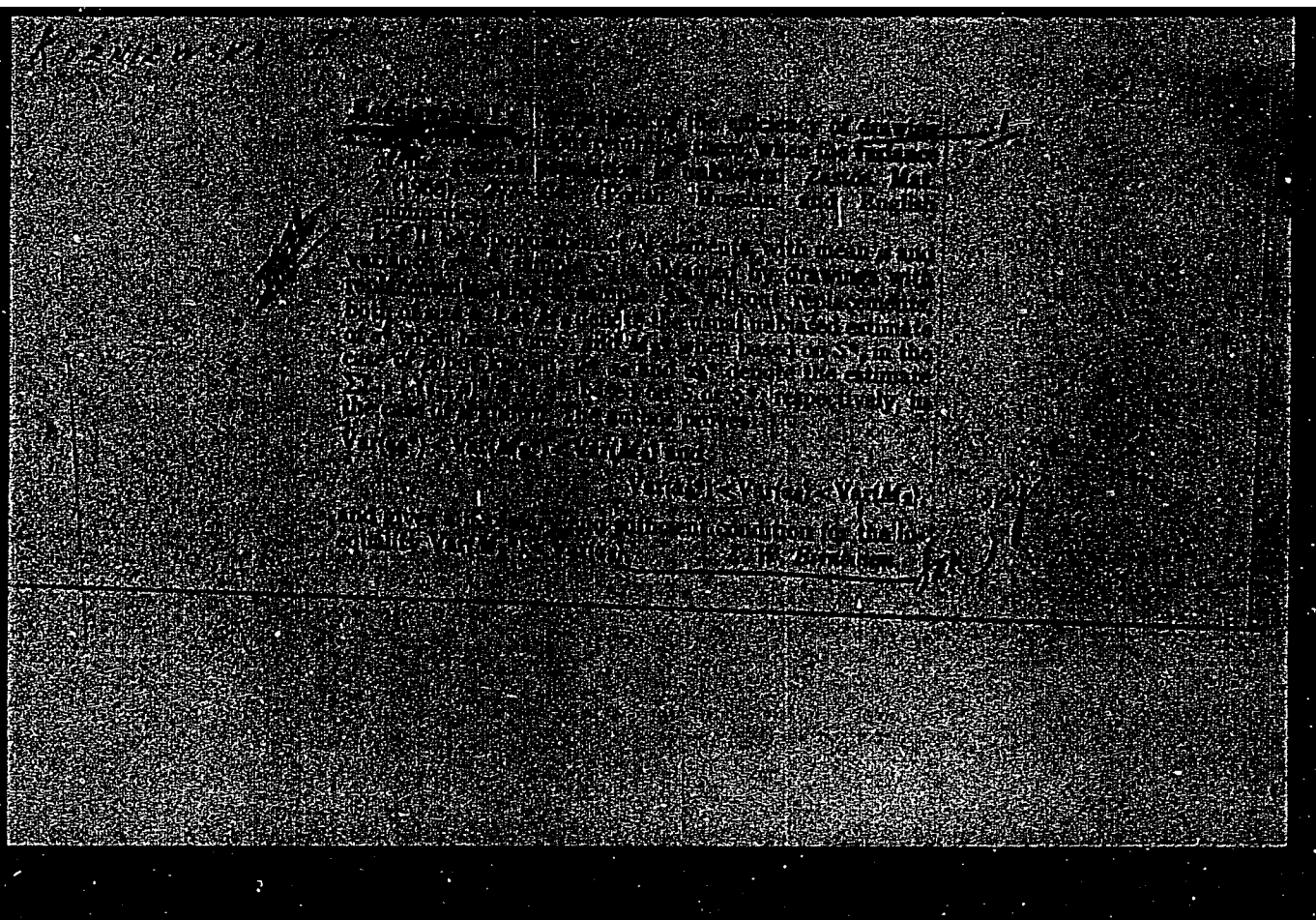
Addison-Biermer pernicious anemia after partial gastric resection with reference to three cases treated by the authors. Przegl lek 19 no.7:316-318 '63.

1. II Clinic of Internal Diseases, Pomeranian School of Medicine, Szczecin. Head: Prof. dr med. E. Gorzkowski.

KOZNIEWSKA, Halina; BORKOWSKI, Tomasz; SŁIWINSKA, Jadwiga; ABRAMOWICZ, Stanisław; ŚWIETLIŃSKI, Kazimierz; JESKE, Józef.

Investigations on the action of urea in the reduction of intracranial pressure. Ann. Univ. Lublin sect. D 19:21-35 ' 64

1. Oddział Neurochirurgii Kliniki Chorob Nerwowych, Wydział Lekarski AM w Lublinie (Kierownik Kliniki: prof. dr. med. Halina Kozniewska) ; Centralne Laboratorium Kliniczne w Lublinie (Kierownik: prof. dr. med. Józef Jeske).



KOZNIEWSKA, I.

Comparison of the efficiency of drawing samples with and without replacement when the variance of the general population is unknown. In English. p. 232.  
(COLLOQUIUM MATHEMATICUM. Vol. 4, no. 2, 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 2, Dec. 1957.  
Uncl.

KOZNIEWSKA, Ira

Asymptotic solutions of differential linear equations. Przegl statyst  
8 no.4:401-413 '61.

P/523/62/009/002/002/003  
A062/A000

16.6100

AUTHOR: Koźniewska, I. (Warsaw)

TITLE: Ergodicity and stationarity of variable Markov chains with a finite number of states

SOURCE: Polska Akademia Nauk. Instytut Matematyczny. Colloquium mathematicum. v. 9, no. 2, 1962, 333 - 346 (Ergodicité et stationnarité des chaînes de Markoff à un nombre fini d'états possibles; French) /B

TEXT: The present paper is the continuation of an article published by the author a few years ago on the ergodicity of variable Markov chains with two states (I. Koźniewska, Ergodicity of non-homogeneous Markov chains with two states. Colloquium mathematicum 5, 1958, 208 - 215). Its purpose is to generalize the previously obtained results to a finite number of states. In this research it was deemed convenient to study also the stationarity of the chains, because in the chain study this property is as important as the ergodicity. The Markov chains studied in this paper are discontinuous with a finite number of states. By hypothesis, they are not constant. Definitions are given of various

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Ergodicity and stationarity of variable Markov ....

P/523/62/009/002/002/003  
A062/A000

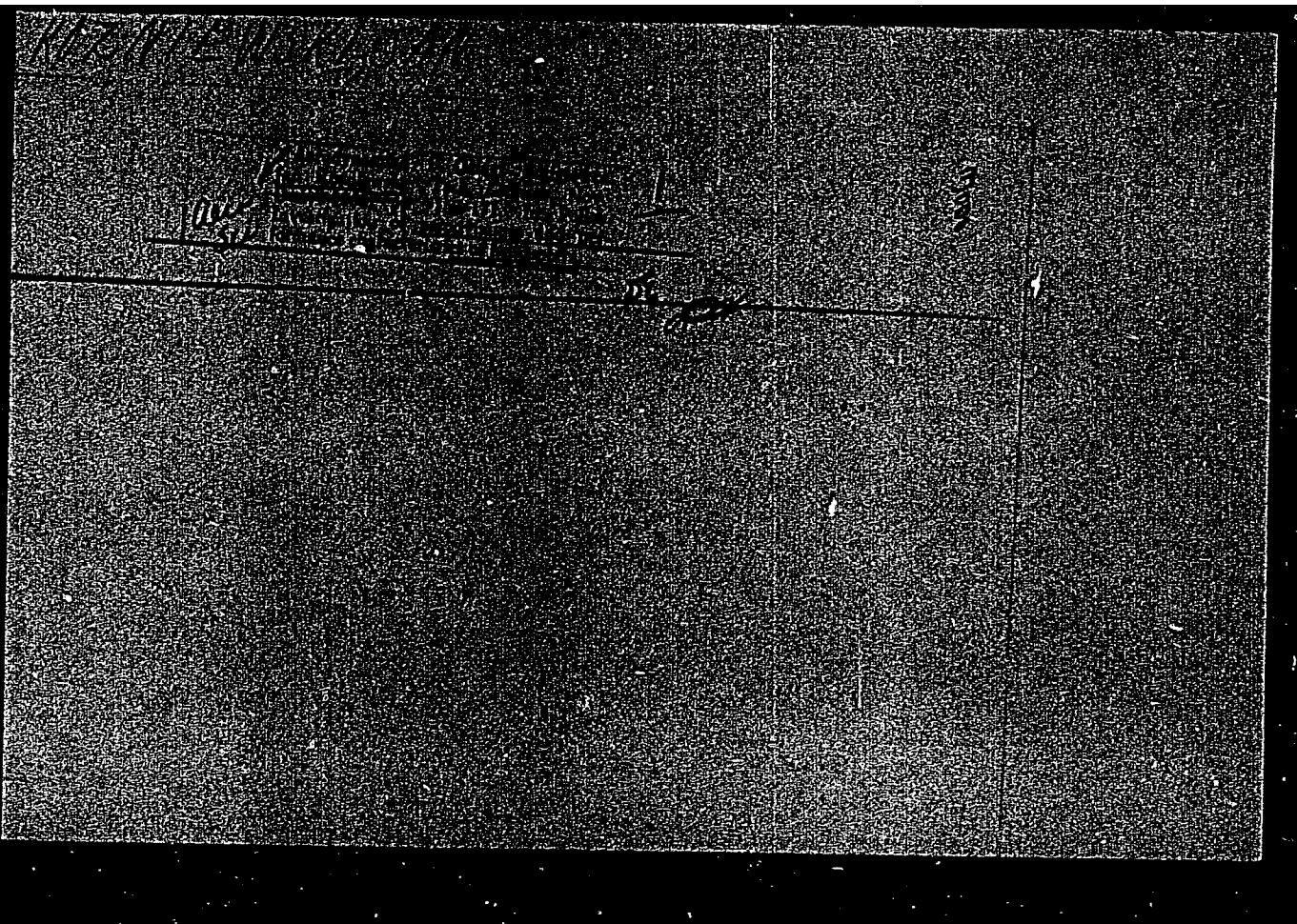
types of Markov chains: weakly ergodic, strongly ergodic, extra ergodic, stationary, asymptotically stationary and asymptotically quasi-stationary, and ergodic of degree  $\alpha$ . Theorems are formulated and demonstrated on the conditions which are necessary and sufficient for a Markov chain to be weakly ergodic, strongly ergodic or ergodic of degree  $\alpha$ , respectively. Some consequences of these theorems are noted and examples are given. JB

SUBMITTED: November 11, 1961

Card 2/2

KOZNIEWSKA, Irena

"Linear regression and its application in economy" by Z. Hellwig.  
Reviewed by Ira Kozniewska. Przegl statyst 8 no.4:449-450 '61.



KOZNIEWSKI, J.

Vertical take-off and landing aircraft.

P. 6 (TECHNIKA LOTNICZA) (Warszawa, Poland) Vol. 13, no. 1, Jan./Feb. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5. 1958

KOZNIEMSKI, STANISLAW

KOZNIEMSKI, Stanislaw

Effect of adrenaline and acetylcholine on isolated segments of small and large intestines in horses. Acta physiol. polon. 5 no.4:519-521 1954.

1. Z Zakladu Fizjologii Zwierzat Wydz. Weterynaryjnego Szkoły Glownej Gospodarstwa Wiejskiego w Warszawie. Kierownik: prof. dr B.Gutowski.

(INTESTINE, effect of drugs on,  
acetylcholine & epinephrine, isolated horse intestine)

(ACETYLCHOLINE, effects,  
on intestine, isolated intestine in horses)

(EPINEPHRINE, effects,  
on intestine, isolated horse intestine)

KOZNIIEWSKI, Stanislaw; BAREJ, Wieslaw

Effect of acetylcholine, adrenalin and serotonin on movements of the rumen in sheep. Acta physiol. polon. 11 no. 2: 291-303 Mr-Apr '60.

1. Z Katedry Fizjologii Zwierząt S. G.G.W.w Warszawie, Kiernownik:  
prof. dr B. Gutowski.

(ACETYLCHOLINE pharmacol.)

(EPINEPHRINE pharmacol.)

(SEROTONIN pharmacol.)

(STOMACH)

GUTOWSKI, B.; KOZNIIEWSKI, S.

Effect of CO<sub>2</sub> on the respiratory reflex in birds. Acta physiol.  
polon.11 no.5/6:712 '60.

1. Z Katedry Fizjologii Zwierząt S.G.G.W. w Warszawie. Kierownik:  
prof.dr B.Gutowski.

(CARBON DIOXIDE pharmacol)  
(RESPIRATION)

GUTOWSKI, B.; KOZNIIEWSKI, S.; TEMLER, A.; BAREJ, W.; KULASEK, G.

Studies on the cecal contents in horses. Acta physiol. polon.  
11 no.5/6:714 '60.

1. Z Katedry Fizjologii Zwierząt S.G.G.W. w Warszawie, Kierownik:  
prof.dr B.Gutowski.  
(CECUM)

KOZNIEWSKI, S.

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Observations on the effect of extra- and intra-intestinal application of neurohormones on gastric motility in vitro. Acta physiol.polon. 11 no.5/6:784-787 '60.

1. Z Katedry Fizjologii Zwierzat S.G.G.W. w Warszawie. Kierownik: prof.dr B.Gutowski.

(SEROTONIN pharmacol)  
(INTESTINES pharmacol)

KOZNIENSKI, S.

Determination of the rate of passage of the gastrointestinal contents in horses with permanent cecal fistulae. Acta physiol. polon.11 no.5/6:787-788 '60.

1. Z Katedry Fizjologii Zwierząt S.G.G.W. w Warszawie, Kierownik:  
prof.dr. B.Gutowski.

(GASTROINTESTINAL SYSTEM physiol)

KOZMINSKI, Stanislaw

SOURCE (in caps); Given Names

Country: Poland

Academic Degrees:

Chair of Animal Physiology, Veterinary Division, Central  
Affiliation: School of Agriculture (SGGW - Szkoła Główna Gospodarstwa  
Wiejskiego), Warsaw; Director: Boleslaw GUTOWSKI, Prof dr  
Source: Warsaw, Medycyna Weterynaryjna, No 4, April 1961; pp 236-240

Data: "Rate of Passage of Foodstuffs through the Alimentary Tract of  
Horses with Permanent Fistula of the Caecum."

JACZEWSKI, Z.; GILL, J.; KOZNIEWSKI, S.

Regulation of blood pressure in the brown bear (*Ursus arctos* L.).  
Bul Ac Pol biol 9 no.5:227-229 '61. (EEAI 10:9)

1. Laboratory of Physiology, Municipal Zoological Garden, Warsaw and  
Laboratory of Game Animals Physiology, Polish Academy of Sciences,  
Popielno. Presented by W. Stefanski.

(BLOOD PRESSURE) (BEARS)

POLAND

KOZNIEWSKI, Stanislaw; Department of Animal Physiology Veterinary College,  
Superior School of Rural Economics (Katedra fizjologii zwierzat Wydzialu  
Wet. SGGW,) Head (Kierownik) Prof Dr Eugeniusz DOMANSKI, Warsaw.

"Indirect Recording of Movements in the Rumen of Cattle."

Lublin, Medycyna Weterynaryjna, Vol 21, No 10, Oct 65; pp 604-605.

Abstract : Description of 'rumenograms', kymogram-like recordings of internal movements in the rumen of 3 cows during rumination, recorded through the skin; discussion of the positive role of this technic in the discovery of causes of digestive disturbances in cattle. Four rumenograms.

1/1

KOZNOV, A.

Creative approach to all work. MTO no.4:50 Ap '59.

(MIRA 12:6)

1. Uchenyy sekretar' soveta pervichnoy organizatsii Nauchno-  
tekhnicheskogo obshchestva na stroitel'stve Naugarzanskogo plaviko-  
ipatovogo rudnika, g. Angren.

(Angren--Mining research)

KOZNOV, A.M., inzhener-ekonomist.

Solikamsk, the center of potassium fertilizers. Nauka i shizn'  
no.8:19-21 Ag '47. (MLRA 9:5)  
(Solikamsk--Potassium salts)

26522

S/065/61/000/008/007/009

E194/E135

11.0170

AUTHORS: Losikov, B.V., Fat'yanov, A.D., Mikulin, Yu.V.,  
Aleksandrova, L.A., Koznov, G.G., and Berezina, R.M.

TITLE: The use of residual fuels in gas turbines

PERIODICAL: Khimiya i tekhnologiya topliv i masel,  
1961, No. 8, pp. 47-53

TEXT: The mechanism of deposit formation and corrosion in gas turbines using residual fuels containing vanadium and sodium is discussed. Possible methods of avoiding the vanadium corrosion include injection into the combustion chamber of substances which react with vanadium pentoxide and the more convenient use of fuel additives. The object of the present work was to check, on typical materials used in gas turbines, the corrosivity of corrosion products of high-sulphur marine heavy-fuel grade  $\Phi C -5$  (Fs-5) and to study the use of additives to reduce this corrosion. The tests were made on a model combustion chamber which had previously been used for testing high sulphur distillate fuels but for the present work fuel heating equipment was provided. The test samples were made up as plates of 40 x 25 x 4 mm which were

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The use of residual fuels in gas ....

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E194/E135

placed in the path of flow of the combustion products. Corrosion was assessed by change in weight after the specimen had been exposed in the chamber and cleaned by electrolytic treatment in a solution of sodium carbonate and sodium hydroxide. It was found that corrosion is most intense in the first 2 - 3 hours and that it has reached a practically constant value at the end of 5 hours so that there was no need to continue the tests longer than this. The reference fuel was grade  $\Phi$ -12 (F-12) containing 130 parts per million sodium and no vanadium. The vanadium content of the other fuels ranged from 16 to 35 parts per million vanadium. The first tests were made with nickel base alloys  $\Phi$ M-435 (EI-435) and  $\Phi$ M-602 (EI-602) which show little vanadium corrosion at temperatures below 650-700 °C; however, at higher temperatures the rate of corrosion rises rapidly. Alloys based on iron such as grade  $\Phi$ M-481 (EI-481) are much more affected by vanadium than are the nickel alloys, particularly at the higher temperatures. The higher the vanadium content of the fuel, the lower the temperature at which the rising inflection of the corrosion curve occurs. At a gas temperature of 800-850 °C appreciable corrosion is observed with 10 ppm vanadium in the fuel, whereas at 630-680 °C corrosion

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The use of residual fuels in gas ....

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increases appreciably only with fuel of 30 ppm vanadium or more. In general, at temperatures of 650-850 °C the combustion products of fuels containing 14 - 35 parts per million vanadium increased the rate of corrosion by a factor of 4 to 15, depending on the alloy used. The effect of additives was checked on fuel grade F-12 (no vanadium) and Fs-5 containing 27 parts per million vanadium and 9 parts per million sodium using alloys EI-602, EI-481 and EI-417. The additives used were organic compounds of magnesium that are readily soluble in heavy fuels but differing in the structure of the organic radical. The use of additive to the extent of 0.2% weight of fuel greatly reduced vanadium corrosion. It was shown that some organic magnesium compounds are much more effective than others. It is concluded that with 30 parts per million vanadium in the fuel the use of 0.016% magnesium in the form of soluble organic compounds practically completely prevents vanadium corrosion. Tests were also made with injection into the combustion chamber of ammonia to the extent of 0.5% by weight of the fuel. This also practically prevents vanadium corrosion of the nickel and iron alloys within the temperature range tested.

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The use of residual fuels in gas ...

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E194/E135

Use of ammonia at the rate of 0.2% weight is less effective. The best results were obtained when the ammonia was injected before the combustion zone. A further advantage of using soluble compounds as against the suspensions sometimes used is that erosive wear of the turbine blades is reduced. A mechanism of action of the additives is suggested.

There are 6 figures, 1 table and 14 references: 5 English and 11 Soviet (including 3 translations from Proceedings of World Petroleum Congress VII). The four most recent English language references read as follows:

Ref.1: A. Garner, P. Green, R. Harper, F. Pegg. J. Inst. of Petrol., Vol.39, 278, 1953.

Ref.2: Proc. Inst. Mech. Eng., Vol.168, No.3, 1954.

Ref.4: P. Lloyd, R. Probert. Proc. Inst. Mech. Eng., Vol.163, 206, 1950.

Ref.9: H. King, H. Nutt. Trans. ASME, Vol.78, No.1, 185-196, 1956.

Card 4/4

KOZNOV, N. A. Cand Tech Sci -- (diss) "The designing of <sup>steel</sup> floating jet-guiding  
~~steel~~ systems." Mos, 1958. 21 pp (Min of Higher Education USSR. Mos Inst  
of Engineers of Water Resources im V. R. Vil'yams), 110 copies (KL, 13-58, 96)

-57-

KOZNOV, N.A., veterinarnyy vrach.

Combined method of treating trichomoniasis in cattle. Veteri-  
nariia 30 no.5:19-21 My '53. (MLRA 6:5)

1. Smolenskaya nauchno-issledovatel'skaya veterinarnaya opytnaya  
stantsiya.

KOZNOV, N. A.

KOZNOV, N. A.- "Scientific-Practical Foundation for Combatting Trichinosis of Cattle (from Materials of the Smolensk Oblast)." All-Union Inst of Experimental Veterinary of the Min of Agriculture USSR, Smolensk, 1955 (Dissertations for Degree of Candidate of Veterinary Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

KOZNOV, N.A.

Course of piroplasmosis in foals. Veterinariia 32 no.3:  
53-54 Mr '55. (MLRA 8:4)

1. Direktor Smelenskoy nauchno-issledovatel'skoy veterinarno-  
opytney stantsii.  
(HORSES--DISEASES) (PIROPLASMOSIS)

VOLOSKOV, P.A., professor; BELEN'KIY, M.L.; KOZNOV, N.A.

Experience in eliminating sterility in cattle. Veterinariia 32  
no.7:24-31 J1 '55. (MIRA 8:9)

- 1.Vsesoyuznyy institut eksperimental'noy veterinarii (for Voleskov).
  - 2.Nachal'nik veterinarnogo otdela Smolenskey oblasti (for Belen'kiy).
  - 3.Direktor NIVOS (for Koznev).
- (STERILITY IN ANIMALS)

KOZNOV N.A.

KOZNOV, N.A., kandidat veterinarnykh nauk; BARSUKOV, G.F.

Listerellosis in swine. Veterinariia 34 no.5:23-24 My '57.

(MIRA 10:6)

1. Nachal'nik veterinarnogo otdela Smolenskogo oblsel'khozupravle-  
niya (for Koznov). 2. Glavnyy veterinarnyy vrach Sychevskogo rayona  
(for Barsukov).

(Swine--Diseases and pests)

(Listerellosis)

*НЕЗНАКОМ.*  
KOZNOV, N.A., kand. vet. nauk.

Elimination of foot-and-mouth disease in Smolensk Province districts.  
Veterinariia 35 no.1:50-51 Ja '58. (MIRA 11:2)

1. Nachal'nik vetotdela Smolenskogo oblastnogo upravleniya sel'skogo khozyaystva.  
(Smolensk Province--Foot-and-mouth disease)  
(Veterinary medicine)

PETRUKHIN, I.V.; KOZNOV, N.A.; SHKUDOVA, R.I., red.; SAYTANIDI, L.D.,  
tekhn.red.

[Trichomoniasis in cattle] Trikhomonoz krupnogo rogatogo skota.  
Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1961. 119 p.

(MIRA 15:5)

(Cattle--Diseases and pests) (Trichomoniasis)

KOZNOV, N. A. and YEGOROV, V. G. (Candidate of Veterinary Sciences  
and Oblast' Veterinary Bacteriological Laboratory, Smolensk Oblast')

"Concerning the epizootiology, diagnosis and therapy of leptos-  
pirosis of calves"

Veterinariya, Vol. 38, no. 7, July 1961, pp. 39

*Koznov, N. A. - Cand. Vet Sci*

KOZNOV, N.A., kand. veter. nauk; YEGOROV, V.G.

Epizootiology, diagnosis, and therapy of leptospirosis in  
calves. Veterinariia 38 no.7:39-40 JI '61. (MIRA 16:8)

1. Oblastnaya veterinarno-bakteriologicheskaya laboratoriya,  
Smolenskoy oblasti.

(Smolensk Province--Leptospirosis)

(Smolensk Province--Calves--Diseases and pests)

KOZNOV, N.A., kand.veterinar.nauk; YEGOROV, V.G.

Leptospirosis in calves. Veterinariia 40 no.9:20-21 S '63.  
(MIRA 17:1)

1. Smolenskaya oblastnaya veterinarnaya laboratoriya. 2. Zaveduyushchiy  
epizootologicheskim otdelom Smolenskoy oblastnoy veterinarnoy labora-  
torii (for Yegorov).

KOZNOVA, L.B.

Olfactory disorders in human subjects exposed to radiations. Med.  
rad, 2 no.2:26-30 Mar-Apr '57. (MIRA 10:7)

(ROENTGEN RAYS, effects,

olfactory disord. in humans (Rus))

(SMELL,

olfactory disord. in irradiated humans (Rus))

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radiation sickness [with summary in English]. Med.rad. 3 no.2:  
78-80 Mr-Apr'58 (MIRA 11:5)

(METHENAMINE, ther.use

radiation sickness (Rus))

(ROENTGEN RAYS, inj.eff.

radiation sickness, ther., methenamine (Rus))

KOZNOVA, L.B.

Effect of the irradiation dose strength on the biological effect.

Med. rad. 4 no.5:48-52 My '59.

(MIRA 12:7)

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relation of dose strength to biol. eff. in rats (Bus))

DOMSHLAK, M.P.; DARENKAYA, N.G.; KOZNOVA, L.B.; KHRUSHCHEV, V.G.

Problems in experimental techniques of radiation effects and  
certain radiobiological data. Med.rad. 4 no.12:3-11 D '59.

(RADIATION EFFECTS)

(MIRA 13:5)

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Some data on radiation effects with high dosage intensity. Med.  
rad. 5 no.10:61-67 '60. (MIRA 14:2)  
(RADIATION—PHYSIOLOGICAL EFFECT)

176hh

S/638/61/003/000/002/005  
D296/D307

27.1220

AUTHORS: Darenskaya, N.G., Domshlak, M.P., Koznova, L.B., and Khrushchev, V.G.

TITLE: A  $\gamma$ -ray device with an activity of 32,000 g-equivalent radium (Results of some biological investigations)

SOURCE: Trudy Tashkentskoy konferentsii po mirnomu ispol'zovaniyu atomnoy energii, v. 3, Tashkent, Izd-vo AN Uzb. SSR, 1961, 63 - 69

TEXT: The authors describe in detail a new powerful  $\gamma$ -ray device: ЭГО-20 (EGO-20) suitable for experimental irradiation of all types of laboratory animals. The device was used to study the biological effects of very large doses of radiation to corroborate reports, according to which exposure to radiation at a higher rate produces less marked biological effects than the same dose administered over a longer period. The device consists of 2 containers, the first of which measures 280 x 140 x 380 cm in size and serves as receptacle for the  $\text{Co}^{60}$  elements; in this container the elements are assorted, arranged and put into working position in the desired strength and Card 1/3

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order. This part also contains 15 stainless steel tubes, in which the elements can be safely stored in case of accidents. The second container, 400 x 140 x 380 cm, includes an Al cylindrical radiation chamber. 150 standard elements of  $\text{Co}^{60}$ , of cylindrical shape, 82.5 mm long and 12 mm in diameter, with an activity of  $20 \pm 25$  g - equivalent radium each are used. They are arranged in 15 linear sources in groups of 10, each of which is 100 cm long. The total activity amounts to 32,000 g - equivalent radium. A hydraulic mechanism shifts the elements from storage position into working position in which latter 5, 10 or 15 linear sources can be aimed at the radiation chamber. To decrease the solubility of metallic cobalt the system is filled with distilled water which is never exchanged but periodical-ly filtered free of dust and other contaminations. In the biological experiments 30 dogs, 20 rats and 45 mice were exposed to 15,000, 30,000 and 50,000 r respectively. To compare the biological effect of rays emitted by the old and new device the authors administered the 3 doses mentioned above at a rate of 387-500 and 2000 r/min res-pectively. The biological effect was assessed by the survival time after the exposure and by the time of onset of convulsions. In dogs no significant difference in the survival time could be observed,  
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D296/D307

but rats exposed to the higher rate (2000 r/min) lived 27 hrs. 50 min. compared to an average of 10 hours 27 min. in rats exposed to the lower rate (387-500 r/min). In mice the difference was even more striking: 20 hours 28 min. and 4 hours 26 min. respectively. Convulsions appeared very early in dogs exposed to the lower rate of radiation: after 10 - 20 min. (total dose 15,000 r) and 4 min. (total dose 30,000 r) respectively. Dogs exposed to 2000 r/min showed the first convulsions after 40-45 min. (15,000 r) and 20-40 min. (30,000 r) respectively. In rats and mice the interval between the exposure and the onset of convulsions was about twice as long in animals exposed to the higher rate. These findings are consistent with the report of Pugh and Clugston and suggest that in addition to species-specific features an increase in the rate of administration may cause far reaching changes in the biological effect of high radiation doses. There are 3 figures and 3 tables. The most important English-language reference is: R. Pugh and H. Clugston, Radiation Research, 1, 5, 437-447, 1954.

ASSOCIATION: Ministerstvo zdравookhraneniya SSSR (USSR Ministry of Health)  
Card 3/3